Computer & Communications

DECISIONS

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NEW TRICKS FOR MICRO MASS STORAGE

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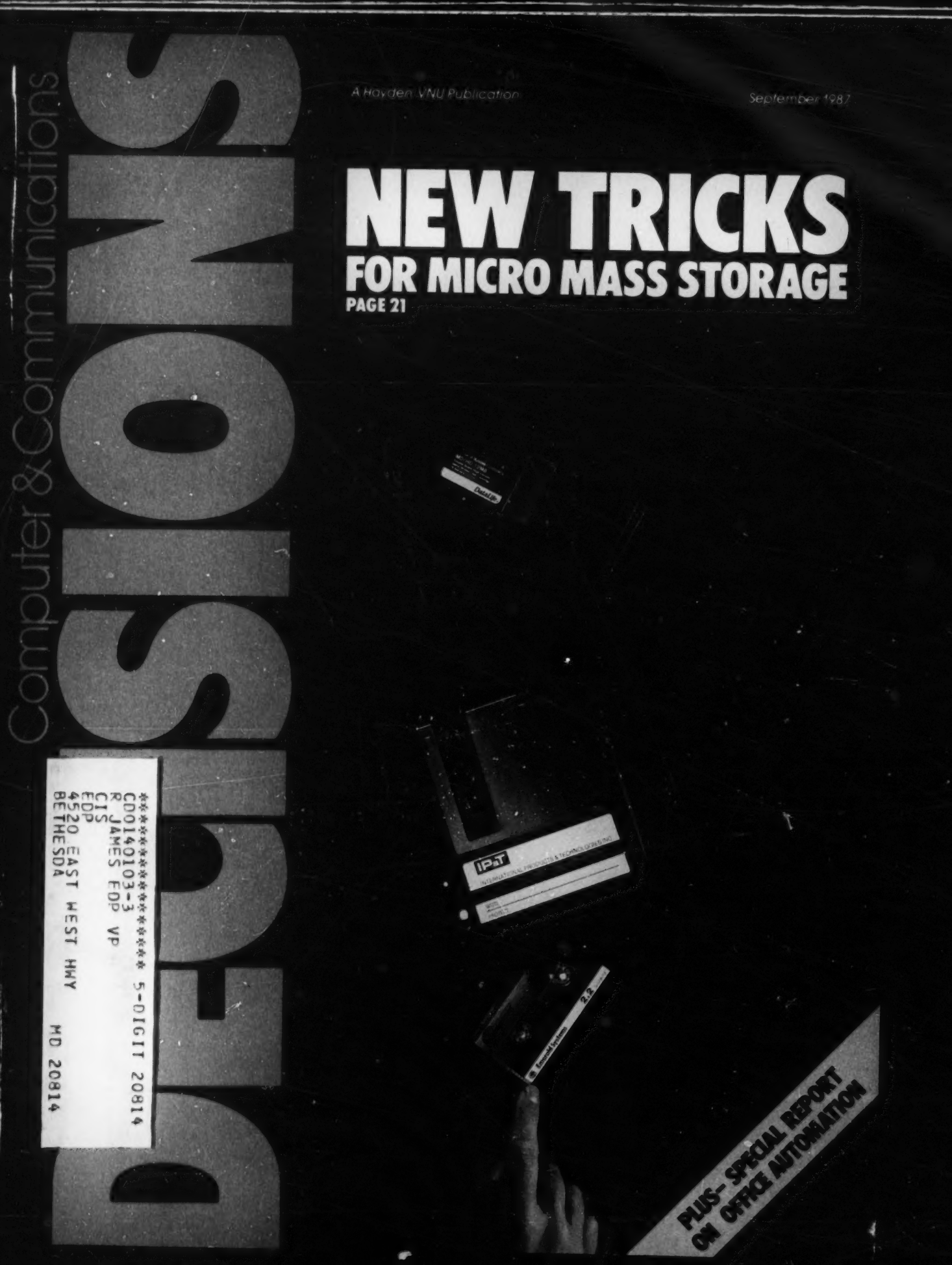

PLUS– SPECIAL REPORT ON OFFICE AUTOMATION

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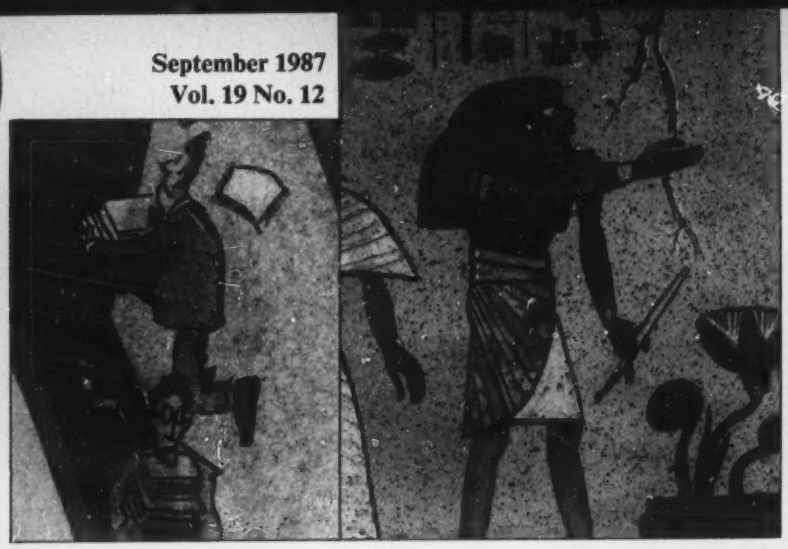

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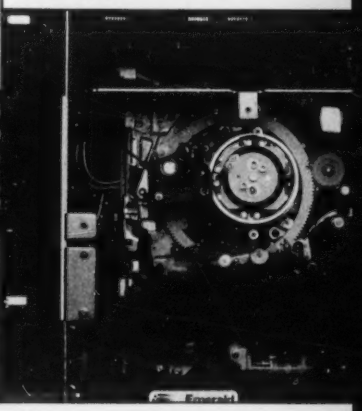

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PERFORMANCE REPORT

Software and services: Strength in unity

For large-system software and service vendors, growth-by-acquisition proved a profitable strategy last year—so profitable that the wave of mergers has continued to build.

by Lee Keough

Vendors of software and computer services decided last year that it's quicker to buy market presence than create it. The strategy is working: The top large-system software vendors grew 25 percent in 1986, and service vendors grew 13 percent.

The trend toward consolidation in these market segments shows no signs of abating, despite tax laws that discourage mergers. Indeed, the first half of this year saw the largest software acquisition ever—Computer Associates International Inc.'s purchase of Uccel Corp. (see "Going for number one, the easy way," page 92).

A close look at the financial performance of the top vendors of large-system software and services for the fiscal year ending March 31, 1987, uncovers several trends:

- Utility software vendors outperformed application vendors.
- Software consultancies grew at a healthy rate, albeit more slowly than expected.
- Software houses that serve the banking industry did a brisk business, as did third-party maintenance vendors in general.

Of course, there are exceptions. Oracle Corp., the pioneering vendor of database management systems compatible with IBM's Structured Query Language, turned in the best performance, growing a hefty 136 percent. Larry Ellison, CEO at Oracle, says a key to Oracle's success is portability. Only 25 percent of Oracle's revenues are derived from IBM mainframe customers, he says.

Others in the market didn't fare so well. The popularity of IBM's DB2 continued to give Cullinet Software Inc. headaches—Cullinet's IDMS DBMS isn't compatible with DB2. Cullinet is taking a cue from Oracle's success. Under new CEO David L. Chapman, Cullinet has announced IDMS support for SQL and is eyeing new markets, including Unix and manufacturing applications.

IBM's new commitment to application development—through a new Application Systems division—is expected to widen the market for packaged systems. "We want to energize and focus internally to get more timely application solutions," says Joseph M. Guglielmi, who heads the new division. A second goal is to focus the efforts of independent software vendors on IBM hardware, particularly in midrange systems, he says. To that end, the new division may embark on strategic partnerships, but it will stop short of buying up independent vendors, he adds.

"IBM is already selling applications, so there is nothing ominous about this," observes John P. Imlay, chairman of Management Science America Inc. "This opens a line of communication with us," he adds, speaking for the Association of Data Processing Service Organizations.

The first project to be tackled by the division is office application development, says Guglielmi. The uniting of IBM's two current office systems, DISOSS (Distributed Office Support System) and Profs (Professional Office System), is expected to come out of that project.

IBM also sees opportunities in the computer-integrated manufacturing and banking markets. In the CIM arena, IBM will strive to enhance its existing manufacturing packages, Mapics and Topics, add computer-aided design and manufacturing software and robotics, and create a "back-office" accounting system for manufacturing plants. Guglielmi says IBM is developing systems to cash in on the surge in the banking market.

Rick Friedman

Larry Ellison (top) built a winning strategy at Oracle; David Chapman hopes to do the same at Cullinet.

Ted Jastrzembski, software analyst for International Data Corp., Framingham, MA, agrees that IBM's new effort in applications should help, rather than hinder, independent vendors. "IBM has not been a substantial

'87	'86	Company	'87 Revenues (000)	'86 Revenues (000)	% Growth
		Large-Systems Software			
1	1	Computer Associates Int'l. Inc. *(Garden City, NY)*	**309,315**	191,032	62
2		The Dun & Bradstreet Corp. *(New York)*	**270,000***	N/A	N/A
3	4	Management Science America Inc. *(Atlanta)*	**210,541**	156,108	35
4	3	Sterling Software Inc. *(Dallas)*	**196,673**	178,835	10
5	2	Cullinet Software Inc. *(Westwood, MA)*	**163,304**	182,803	-11
6	9	Policy Management Systems Corp. *(Columbia, SC)*	**160,025**	109,832	46
7	7	AGS Computers Inc. *(Mountainside, NJ)*	**154,000**	128,568	20
8	6	Uccel Corp. *(Dallas)*	**150,311**	132,061	14
9	5	Ameritech Inc. *(Chicago)*	**142,401***	139,989*	2
10	8	Triad Systems Corp. *(Sunnyvale, CA)*	**111,981**	114,252	-2
11		SAS Institute Inc. *(Cary, NC)*	**102,400***	N/A	N/A
12	17	Oracle Systems Corp. *(Belmont, CA)*	**101,709**	43,006	136
13	11	Pansophic Systems Inc. *(Oak Brook, IL)*	**100,979**	79,080	28
14	10	Cincom Systems Inc. *(Cincinnati)*	**100,000****	89,000**	12
15	13	Information Builders Inc. *(New York)*	**95,000***	70,000*	36
16	12	Ask Computer Systems Inc. *(Los Altos, CA)*	**93,489**	70,193	33
17	14	Comshare Inc. *(Ann Arbor, MI)*	**68,493**	67,987	1
18	16	Compuware Corp. *(Birmingham, MI)*	**68,200**	60,100	13
19	15	Software AG Systems Inc. *(Reston, VA)*	**66,485**	61,141	9
20	21	On-Line Software International Inc. *(Fort Lee, NJ)*	**53,509**	33,302	61
21	18	Intermetrics Inc. *(Cambridge, MA)*	**47,747**	42,631	12
22	23	Relational Technology Inc. *(Alameda, CA)*	**45,000****	28,100**	60
23	20	American Software Inc. *(Atlanta)*	**44,246**	35,765	24
24	24	Hogan Systems *(Dallas)*	**44,091**	27,013	63
25	19	Keane Inc. *(Boston)*	**40,712**	39,571	3
26	22	Boole & Babbage Inc. *(Sunnyvale, CA)*	**37,293**	31,582	18
27	27	Duquesne Systems Inc. *(Pittsburgh)*	**33,207**	15,377	116
28		Morino Associates Inc. *(Vienna, VA)*	**31,198**	N/A	N/A
29	26	Goal Systems International Inc. *(Columbus, OH)*	**29,231****	17,553**	67
30	25	VM Software Inc. *(Reston, VA)*	**29,009**	19,154	51
		Total Large-Systems Software	**3,100,549**	2,164,035	25†
		Computer Services			
1	1	TRW Inc. *(Cleveland)*	**1,650,000**	1,450,000	14
2	2	Automatic Data Processing Inc. *(Roseland, NJ)*	**1,347,533**	1,152,417	17
3	3	McDonnell Douglas Corp. *(St. Louis)*	**1,198,500**	1,106,700	8
4	4	Electronic Data Systems Corp. *(Dallas)*	**1,176,500**	998,000	18
5	6	Computer Sciences Corp. *(El Segundo, CA)*	**1,031,459**	838,587	23
6	5	General Electric Co. *(Fairfield, CT)*	**775,000**	855,000	-9
7	7	Arthur Andersen & Co. *(Chicago)*	**635,900****	477,300	33
8	8	Martin Marietta Corp. *(Bethesda, MD)*	**467,400***	429,900*	9
9	9	Emhart Corp. *(Farmington, CT)*	**408,896**	395,298*	3
10	10	Shared Medical Systems Corp. *(Malvern, PA)*	**384,229**	326,781	18
11	12	Bell Atlantic Corp. *(Philadelphia)*	**238,000**	202,000	18
12	11	The Boeing Co. *(Seattle)*	**235,000**	225,000	4
13		Mtech Corp. *(Dallas)*	**201,709**	N/A	N/A
14	13	HBO & Co. *(Atlanta)*	**151,030**	185,862	-19
15	14	Computer Task Group Inc. *(Buffalo, NY)*	**149,983**	121,988*	23
16		Intelogic Trace Inc. *(San Antonio, TX)*	**145,250**	N/A	N/A
17	16	American Management Systems Inc. *(Arlington, VA)*	**143,947**	115,233	25
18	17	Grumman Corp. *(Bethpage, NY)*	**137,767**	115,015	20
19	15	Systematics Inc. *(Little Rock, AR)*	**135,114**	117,664	15
20		Touche Ross & Partners *(Toronto, Ontario)*	**135,000****	N/A	N/A
21		Peat Marwick *(Montvale, NJ)*	**125,000****	N/A	N/A
22	19	Arthur Young & Co. *(New York)*	**118,000****	105,000**	12
23	18	Anacomp Inc. *(Indianapolis)*	**110,740**	106,653	4
24		Price Waterhouse & Co. *(New York)*	**100,000****	N/A	N/A
25	25	C3 Inc. *(Reston, VA)*	**86,300**	46,535	85
26	22	First Financial Management Corp. *(Atlanta)*	**83,733**	56,290	49
27	20	Systems Management America Corp. *(Norfolk, VA)*	**80,000***	62,000*	29
28	24	Cycare Systems Inc. *(Phoenix)*	**59,314**	51,848	14
29	21	SEI Corp. *(Wayne, PA)*	**59,205***	59,655*	-1
30	23	Computer Horizons Corp. *(New York)*	**58,476****	50,892	15
		Total Computer Services	**11,628,985**	9,651,523	13†
		Total Software and Services	**14,729,534**	11,815,558	15†

Total '87 Revenues (000)	Total '87 Profits (000)
309,315	36,494
3,113,506	339,990
210,541	13,983
196,673	2,758
163,304	(17,843)
160,025	14,599
413,800	9,913
150,311	20,425
9,374,300	1,143
111,981	3,913
102,400	N/A
101,709	10,592
100,979	16,225
100,000	N/A
95,000	N/A
93,489	13,191
68,493	1,952
68,200	N/A
66,485	4,216
53,509	4,178
47,747	629
45,000	N/A
44,246	8,570
44,091	9,512
40,712	1,081
37,293	1,467
33,207	7,074
31,198	5,937
29,231	N/A
29,009	5,072
6,234,400	N/A
1,347,533	122,886
12,653,200	(96,400)
4,421,900	205,900
1,031,459	32,243
37,658,000	2,579,000
1,924,000	N/A
4,807,000	202,300
408,896	N/A
384,229	33,284
10,026,800	1,184,700
16,577,000	635,000
201,709	10,089
151,030	(3,523)
149,983	5,193
145,250	12,647
143,947	5,397
3,528,004	16,381
135,114	10,862
513,000	N/A
1,350,000	N/A
1,427,000	N/A
110,740	10,026
742,000*	N/A
86,300	4,200
83,733	6,409
80,000	N/A
59,314	2,364
118,540	(7,097)
58,476	2,186

*CY '86, '85
**FY All others based on April '86 to March '87 results.
†Total growth rates are based only on known comparitive revenues.

WHO'S HOT . . .

Company	'87 Revenues (000)	% Growth	'86 Revenues (000)
1 Oracle Systems Corp.	101,709	136	43,006
2 Duquesne Systems Inc.	33,207	116	15,377
3 C3 Inc.	86,300	85	46,535
4 Goal Systems Int'l. Inc.	29,231**	67	17,553**
5 Hogan Systems	44,091	63	27,013
6 Computer Associates Int'l. Inc.	309,315	62	191,032
7 On-Line Software Int'l. Inc.	53,509**	61	33,302**
8 Relational Technology Inc.	45,000**	60	28,100**
9 VM Software Inc.	29,009	51	19,154
10 First Financial Mgt. Corp.	83,733	49	56,290

** FY

. . . WHO'S NOT

Company	'87 Revenues (000)	% Growth	'86 Revenues (000)
1 HBO & Co.	151,030	-19	185,862
2 Cullinet Software Inc.	163,304	-11	182,803
3 General Electric Co.	775,000	-9	855,000
4 Triad Systems Corp.	111,981	-2	114,252
5 SEI Corp.	59,205*	-1	59,655*
6 Comshare Inc.	68,493	1	67,987
7 Ameritech Inc.	142,401*	2	139,989*
8 Keane Inc.	40,712	3	39,571
9 Emhart Corp.	408,896	3	395,298
10 Anacomp Inc.	110,740	4	106,653

*CY '86, '85

DECISIONS chart

application vendor before now," says Jastrzembski. "This effort legitimizes the solution side of the software business." Imlay adds that once IBM encourages users to buy packaged applications, rather than develop them in-house, users will look at all alternative offerings on the market.

Computer service vendors fared less well than their counterparts in software. "Professional service vendors are doing well in general," says Jastrzembski, "but a lot of small shops are hurting." As a result, he says, large consultancies have been snapping the smaller shops.

Small service vendors are being caught in a pricing web. "Professional service vendors have finally penetrated the price barrier," says Thomas Lawton, Belmont, MA-based editor of *Computer Services Report.* Lawton says consultancies have hiked their prices to the point at which customers are beginning to choose a service vendor based on cost, rather than service. Jastrzembski adds that customers now expect specialized expertise for their money. "Users are no longer interested in buying the service of a Cobol programmer," he says.

The rise of heterogeneous networks and an increasing demand for specialized knowledge are also factors influencing the rest of the computer service industry. Victoria Marney-Petix of Dataquest, a San Jose, CA-based market researcher, says network service vendors are beginning to offer application support on their networks. The public data networks that don't keep up with that trend could fail, she says.

Third-party maintenance vendors are enjoying an upsurge in demand, averaging nearly 20 percent annual growth, because users need service contracts that will cover a myriad of hardware vendors. Another factor fueling third-party maintenance growth is the increased cost of service agreements from IBM and Digital Equipment Corp.

Analysts say these trends will continue for the foreseeable future. If so, large-system software and service vendors will continue to be the envy of hardware suppliers. D